Appln No.: 09/719,494
Amendment Dated: July 29, 2004
Reply to Office Action of March 31, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for inducing a cellular immune response to a target peptide that is non-immunogenic ~~or weakly immunogenic~~ in a mammalian subject and that is expressed by tumor cells of the mammalian subject, comprising administering to the mammalian subject an amount of a therapeutic antigen effective to induce a cellular immune response to the target peptide, wherein the therapeutic antigen comprises an immunogenic portion having an MHC-binding domain which binds to the major histocompatability complex (MHC) and an immune recognition domain which is recognized by T-cells, and wherein the therapeutic antigen is derived from the target peptide such that the MHC-binding portion binds to MHC with a greater affinity than the target peptide without material alteration of the immune-recognition portion, thereby inducing a therapeutically effective cellular immune response to the target peptide in the mammalian subject.

2. (original) The method of claim 1, wherein the target peptide and the immunogenic portion of the therapeutic antigen each consist of from 8 to 14 amino acids.

3. (original) The method of claim 1, wherein the therapeutic antigen further comprises a sorting signal for directing trafficking of the therapeutic antigen to the endoplasmic reticulum.

4. (previously amended) The method of claim 3, wherein the target peptide and the immunogenic portion of the therapeutic antigen each consist of from 8 to 14 amino acids.

5. (withdrawn) The method of claim 1, wherein the therapeutic antigen is administered by administration of a nucleic acid encoding the therapeutic antigen, which nucleic acid is expressed in the mammalian subject.

6. (withdrawn) The method of claim 5, wherein the target peptide and the immunogenic portion of the therapeutic antigen each consist of from 8 to 14 amino acids.

7. (currently amended, withdrawn) The method of claim ~~1~~ 5, wherein the therapeutic antigen further comprises a sorting signal for directing trafficking of the therapeutic antigen to the endoplasmic reticulum or endosomes.

8. (withdrawn) The method of claim 7, wherein the target peptide and the immunogenic portion of the therapeutic antigen each consist of from 8 to 14 amino acids.

9. (original) The method of claim 1, wherein the MHC-binding domain binds to an MHC Class I molecule and the immune-recognition domain binds to a cytotoxic T cell.

10. (withdrawn) The method of claim 1, wherein the MHC-binding domain binds to an MHC Class II molecule and the immune-recognition domain binds to a CD4+ T cell.

11. (previously presented) The method of claim 1, wherein the target peptide binds to HLA-A* 0201.

12. (previously presented) The method of claim 1, wherein the target peptide is a self-peptide expressed in normal and tumor tissues of the mammalian subject.

13. (original) The method of claim 12, wherein the target peptide derived from is gp75.

14. (original) The method according to claim 13, wherein the therapeutic antigen has the sequence TAYRYHLL (Seq. ID No. 12).

15. (withdrawn) The method of claim 12, wherein the target peptide is selected from the group consisting of telomerase reverse transcriptase peptide, CD20 peptides and Prostate PSMA peptide.

16. (previously presented) The method of claim 1, wherein the target peptide is a Herpes simplex glycoprotein B peptide and the therapeutic antigen is SSIEFARL (Seq. ID No. 10).

17- 33. (canceled)